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CLAIMS

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[Utility model registration claim]

[Claim 1] In the grill shutter in which connected two or more heart pipes constructed across horizontally in parallel free [ crookedness ] in the direction which intersects perpendicularly with this by the connecting linkage of two or more trains by which parallel arrangement was carried out, and the grid-like slat was made to form The Oshiage arrester of the grill shutter characterized by preparing the notch for making said heart pipe fall in the edges-on-both-sides side where the guide rail to which the edge of said heart pipe slides in the vertical direction counters near the upper limit of the guide rail set up by the both sides of the attached section of a shutter.

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[Translation done.]

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## DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001]

[Industrial Application]

This design is related with the Oshiage arrester of the grill shutter constituted from a grid-like slat so that the interior could be seen.

[0002]

[Description of the Prior Art]

This design connects free [ crookedness ] by the connecting linkage 2 of two or more trains which carried out parallel arrangement of two or more heart pipes 1 constructed across horizontally in parallel as the target grill shutter was shown in drawing 4 in the direction which intersects perpendicularly with this, and forms a grid-like slat, the bond part of the heart pipe 1 and a connecting linkage 2 slides on the inside of the guide rail of the guide rail 3 set up at the both sides of the attached section of a building, and a shutter is opened and closed. On the occasion of closing motion, the grid-like slat which hung the top and was carried out is rolled round, and a drum 5 is rotated normally or reversed.

[0003]

Generally, since it is small and lightweight, the grill shutter of such a grid-like slat is raised by the hand from the exterior, and has \*\*\*\*\* fear. Therefore, the locking equipment which prevents \*\*\*\* of a shutter is needed on crime prevention. JP,61-7334,Y, JP,2-14610,Y, etc. are proposed as a shutter equipped with this kind of locking equipment. The former attaches a lock between two heart pipes which adjoin in the right-and-left both ends of the middle height location of a shutter, and fixes a grid-like slat to a guide rail by locking this.

[0004]

The latch bar which stretched the latter in the guide rail in the location of the lower both sides of a shutter, and came out, The 2 crotch material which engages with a latch bar by rise-and-fall movement of a shutter, and the ratchet wheel which regulates rotation of the 2 crotch material are formed. If it falls to the cavity of 2 crotch material while this latch bar rotates this in contact with 2 crotch material, in case a shutter descends 2 crotch material is locked by the ratchet wheel, and the rise retreat of said latch bar is taken up, and release actuation of a shutter breaker is interlocked with, the piece of inhibition which prevents rotation of a ratchet wheel electromagnetic is pulled apart from a ratchet wheel, and the lock of 2 crotch material is canceled.

[0005]

[Problem(s) to be Solved by the Device]

The above-mentioned conventional equipment all has following faults. namely, locking and unlocking take a help to the former — a fault — it is — the latter — the driving gear of a rolling-up drum — adding — the electromagnetism for locking devices — there is a fault which needs a closing motion control unit.

[0006]

[Means for Solving the Problem]

If a grid-like slat is pushed up by force from the bottom, without using special equipment in order that this design may solve the conventional fault, a grid-like slat will break into the character type of \*\*, and it will eat into the notch of a guide rail, and will offer the equipment which can prevent unsealing of a shutter.

[0007]

Namely, near the upper limit of the guide rail set up by the both sides of the attached section of a shutter in the grill shutter in which connected two or more heart pipes constructed across horizontally in parallel free [ crookedness ] in the direction which intersects perpendicularly with this by the connecting linkage of two or more trains by which parallel arrangement was carried out, and the grid-like slat was made to form The notch for making said heart pipe fall is prepared in the edges-on-both-sides side where the guide rail to which the edge of said heart pipe slides in the vertical direction counters.

[0008]

[Example]

According to a drawing, the example of this design is explained below. The bond part of the heart pipe 1 and a connecting linkage 2 slides on the inside of the guide rail of the guide rail 3 which is the side elevation of a grill shutter where drawing 1 possesses this equipment, and was set up on both sides of the attached section of the grill shutter in opening of a building up and down. This design makes it a summary to form a notch 4 in the edges-on-both-sides side 6 of a guide rail where the edge of said heart pipe slides in the vertical direction [ near the upper limit of said guide rail ].

[0009]

Drawing 2 is what showed the detail and operation of a notch 4, when a grid-like slat descends, is hung a top and will be in a condition, and even if a slat is shaken and heart pipe 1a tends to enter into a notch 4 temporarily, since it slides down in accordance with the margo-inferior inclination of a notch 4, it will be convenient in downward actuation in any way. However, if it is going to push up a slat by force from the bottom at the time of closing of a shutter, since the shutter upper part is locked with the rolling-up drum, the breaker, etc., connecting linkage 2a and 2b are crooked to which of the edges on both sides which surely counter, or a side like illustration near the upper limit of the guide rail 3 near the head-lining section. Therefore, heart pipe 1a falls into a notch 4. And by pushing up from the bottom, the more the force is strong, heart pipe 1a is stuck to the upper limb outline of a notch 4, and, the more it does not escape from it out of a notch. Therefore, it is impossible to push up and open the once closed grill shutter from under from the location of a notch 4.

[0010]

In addition, since the force acts in the direction returned to the core of a guide rail even if connecting linkage 2a and 2b become straight line-like mutually in case a slat is raised on the rolling-up drum 5, and it goes up, it is shaken temporarily and the side face of heart pipe 1a touches the upper limb of a notch 4, heart pipe 1a does not fall to a notch 4, therefore it is convenient in rise actuation of a slat in any way.

[0011]

The notch of this design is not limited to the configuration of an illustration example, and can be made into the shape of the shape of deformation circular and inequality side 3 square shape as shown in drawing 3, and 4 square shapes.

[0012]

[Effect of the Device]

As mentioned above, according to this grill shutter, a notch 4 is formed near the upper limit of the guide rail 3 near the head-lining section, since the heart pipe near the head-lining section cannot touch this from the outside easily, a mischief etc. can prevent raising a shutter by hand by intentionally, and it can attain the theft-proof purpose. And since a notch is only prepared in the edges-on-both-sides side of the guide rail of a guide rail and neither a special device nor control is required, practical effectiveness is high.

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[Translation done.]

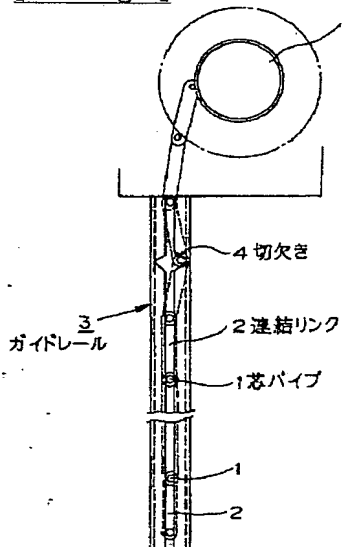
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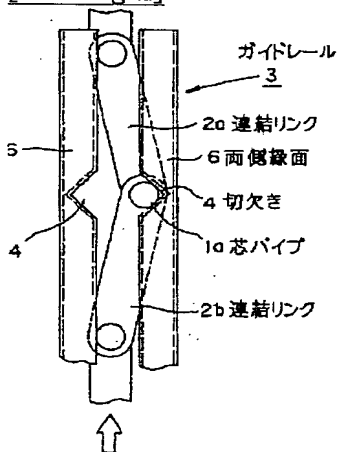
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## DRAWINGS

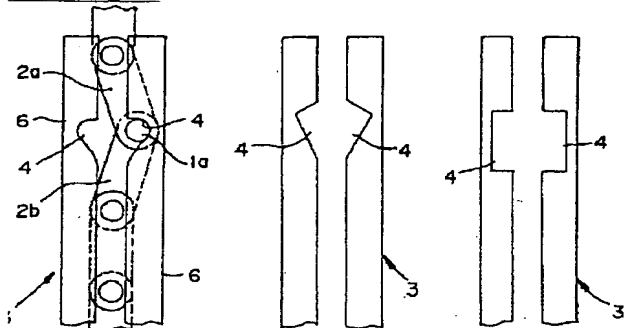
[Drawing 1]



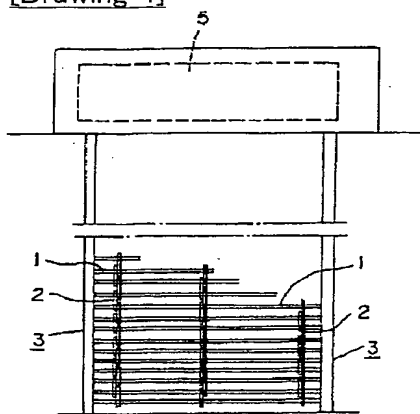
[Drawing 2]



[Drawing 3]



[Drawing 4]



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[Translation done.]

(19)日本国特許庁 (J P)

(12) 公開実用新案公報 (U)

(11)実用新案出願公開番号

実開平6-78594

(43)公開日 平成6年(1994)11月4日

(51)Int.Cl. <sup>5</sup> E 0 6 B 9/18 9/86	識別記号 7238-2E  7238-2E	庁内整理番号 F I  E 0 6 B 9/ 204	技術表示箇所   K
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審査請求 未請求 請求項の数 1 F D (全 2 頁)

(21)出願番号 実願平5-25609

(22)出願日 平成5年(1993)4月20日

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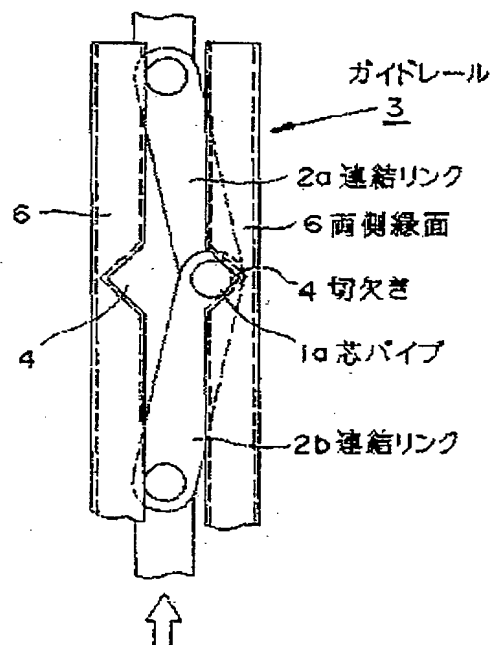
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(54)【考案の名称】 グリルシャッターの押上防止装置

(57)【要約】 (修正有)

【目的】 遙控開閉制御装置などの特別な装置を用いることなしにグリルシャッターの開閉を阻止できる装置を提供する。

【構成】 格子状スラットの左右両側に立設したガイドレール3の上端近傍の案内溝の両側縁面に切欠き4を設け、下から押し上げられたスラットの水平パイプがこの切欠きに引っ掛って外れないようにする。



1

【実用新案登録請求の範囲】

【請求項1】 平行に横架された複数本の芯パイプを、これと直交する方向に平行配設された複数列の連結リンクによって屈曲自在に連結して格子状スラットを形成させたグリルシャッターにおいて、シャッターの被取付部の両側に立設されたガイドレールの上端近傍に、前記芯パイプの端部が上下方向に摺動する案内溝の対向する両側縁面に、前記芯パイプを落ち込ませるための切欠きを設けたことを特徴とするグリルシャッターの押上防止装置。

【図面の簡単な説明】

【図1】 本考案に係るグリルシャッターの側面図である。

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\*【図2】 本考案に係る切欠きの詳細と作用の説明図である。

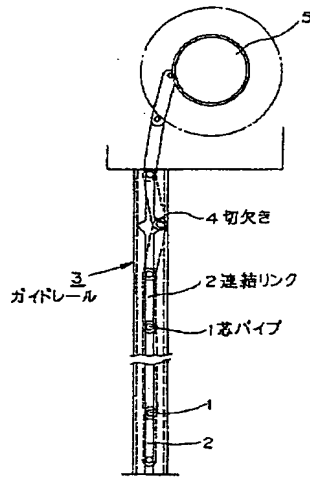
【図3】 切欠きの変形例を示す説明図である。

【図4】 格子状スラットによるグリルシャッターの正面図。

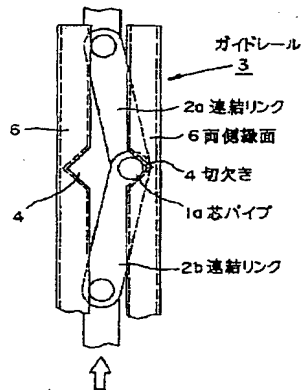
【符号の説明】

- 1 芯パイプ
- 2 連結リンク
- 3 ガイドレール
- 4 切欠き
- 5 巻取りドラム
- 6 両側縁面

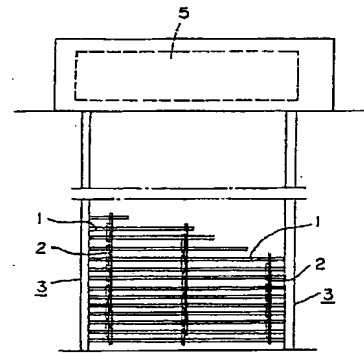
【図1】



【図2】



【図4】



【図3】

